

Carcinoma of the Urinary Bladder

Aspects of Treatment, Costs and Follow-up Routines

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien vid Göteborgs Universitet kommer att offentlig försvaras i Arvid Carlssonsalen, Academicum, Medicinargatan 3
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av

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Leg läkare

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Avhandlingen baseras på följande delarbeten:

- I. **Costs of radical cystectomy.** Berrum-Svennung I, Hedelin H and Holmäng S.
Scand J Urol Nephrol. 2005;39(1):36-41
- II. **Routine postoperative urography after cystectomy and urinary diversion is not necessary.** Berrum-Svennung I and Holmäng S.
Scand J Urol Nephrol. 2005;39(3):211-213
- III. **A single instillation of Epirubicin after transurethral resection of bladder tumors prevents only small-sized recurrences (up to 5 millimeters).** Berrum-Svennung I, Granfors T, Jahnson S, Boman H and Holmäng S.
Under tryckning, Journal of Urology
- IV. **Noninvasive grade 1 tumors with a negative first cystoscopy: Single institution experience with a reduced number of follow-up cystoscopies during the first two years.** Berrum-Svennung I and Holmäng S.
I manuskript

Carcinoma of the urinary bladder.

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Abstract

Aims: To determine costs and factors related to the total costs of cystectomy. To study the results of the radiological examinations performed 7-14 days after a cystectomy. To investigate if a single instillation of epirubicin after transurethral resection (TUR) may influence the time to the first recurrence and its size. To elucidate if a routine with reduced numbers of follow-up cystoscopies in patients with stage Ta tumour is safe.

Patients and methods: The clinical records of 70 consecutive patients subjected to cystectomy were studied. Costs were determined for cystectomies and 22 different factors possibly related to total costs were analysed. The clinical records for a total number of 200 consecutive cystectomy patients were analysed for the results of the postoperative urography. A total number of 404 patients in 13 hospitals were randomised to either one instillation of 50mg epirubicin or placebo within 6 hours after TUR. We included 138 patients with low-grade tumours who had a negative 4-month cystoscopy in a prospective observational study. The size and number of subsequent recurrences were determined.

Results and conclusions: The total costs (median) for cystectomy was 189,479 SEK. Room and Board was the most expensive single item of total costs. In the multivariate analysis high preoperative blood loss was the most important factor associated with high total hospital costs. Not a single patient out of 170 had urinary leak or a significant stricture visualised at the postoperative urography. It can be concluded that a postoperative urography is unnecessary in patients with a normal postoperative course. Seventy-nine (51.0%) out of 155 evaluable patients in the epirubicin group had a recurrence as compared to 95 (62.5%) out of 152 patients in the placebo group. Half of the recurrences were small-sized and could be fulgurated at the time of the follow-up cystoscopy. The clinical benefit of single instillations thus seems questionable.

Patients with low-grade stage Ta tumours who are tumour-free at 4 months can safely follow a routine with cystoscopy at month 12 and 24 and almost all recurrences can be fulgurated at follow-up.

Key words: bladder cancer, cystectomy, stents, economics, follow-up cystoscopy, single-instillation, epirubicin, recurrence size

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